

conduction aphasia has been suggested by recent studies investigating a sensory-motor integration network for speech and related functions. Sensory-motor integration has been studied extensively in the visual-motor domain, and a set of brain regions have been identified in the posterior parietal lobe of both monkeys and humans that appear to perform a transform function mapping between visual and motor representations. These areas show both sensory and motor response properties, are densely connected with frontal-motor areas, and are organized around particular motor effector systems (e.g., eyes vs. hands). Recent work in humans has identified a similar sensory-motor integration network for speech functions (or more accurately, for the vocal tract motor system). Functional imaging has found that a left dominant region within the Sylvian fissure at the parietal-temporal boundary (area Spt) exhibits the same response properties found in sensory-motor integration areas in the posterior parietal lobe. It has been proposed that area Spt is a central hub in a sensory-motor integration network that transforms auditory-based representations into vocal motor-based representations.

Interestingly, the location of area Spt at the parietal-temporal boundary is in the center of the lesion distribution associated with conduction aphasia. Furthermore, Spt activates during the performance of behaviors that are impaired in conduction aphasia (repetition, naming, short-term memory). For these reasons, and because Spt's functional properties show parallels to other known sensory-motor integration areas in the posterior parietal lobe, it has been suggested that conduction aphasia is a deficit caused by damage to area Spt and surrounding tissue, which disrupts the interaction between sensory and motor systems involved in speech.

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*Author's Note:* This work was supported by NIH grants R01 DC03681 & R01 DC009659.

*See also* Aphasia; Production of Language; Working Memory in Language Processing

#### Further Readings

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## CONFABULATION

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One of the Latin roots of the term *confabulation* is *fabulari*, which became our word *fable*. When the German neurologists Karl Bonhoeffer, Arnold Pick, and Carl Wernicke began using the term in the early 1900s, they applied it to false memory reports, little fables, created by their patients, who suffered from a syndrome that later came to be known as Korsakoff's amnesia. When asked what they did yesterday, these patients do not remember, but will report events that either did not happen or happened long ago. The technical definition of confabulation the early neurologists coined has three components: (a) Confabulations are false, (b) confabulations are reports, and (c) confabulations are about memories.

During the remainder of the 20th century, however, the use of the term was gradually expanded to cover claims made by other types of patients, many of whom had no obvious memory problems, including patients who deny illness, split-brain patients (who have had their hemisphere surgically separated to prevent the spread of epileptic seizures), patients with misidentification disorders (who make false claims about the identities of people), and patients with schizophrenia, as well as children and normal adults in certain situations. Patients who deny that they are paralyzed have been claimed to confabulate when they provide reasons for why they cannot move ("My arthritis is bothering me," "I'm tired